

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of preparing a heat-developable image recording material comprising a support, a photosensitive silver halide, a non-photosensitive organic silver salt, a reducing agent for a silver ion, and an emulsion layer comprising a binder in an emulsion layer comprising a polymer latex,

wherein said method comprises:

the binder includes a emulsion polymerizing one or more monomers to form the polymer latex having with a halogen ion content of not more than 100 500 ppm, wherein the polymer latex is not subjected to purification through a desalting step.

2. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 1, wherein the emulsion layer is an image forming layer.

3. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 1, wherein the halogen ion is a chlorine ion.

4. (Cancelled)

5. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 1, wherein the binder has a glass transition temperature of from -20°C to 80°C.

6. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 1, wherein the polymer latex contains a conjugated diene copolymer.

7. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 1, wherein the reducing agent contains:

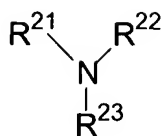
a phenol compound; and

a compound that satisfies at least one of the conditions (A) and (B):

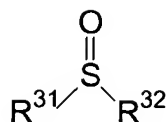
(A) : the compound having a hydrogen bond-forming rate constant (Kf) of from 20 to 4,000,

(B) : the compound having one of a phosphoryl group in its molecule, and a structure represented by formula (II),

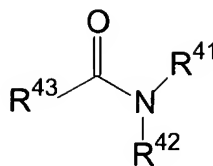
(III), (IV) or (V):



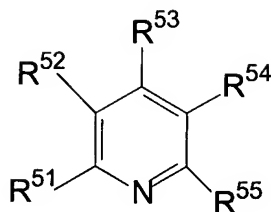
(II)



(III)



(IV)



(V)

wherein  $R^{21}$  and  $R^{22}$ , which are the same or different, each represents an alkyl group;  $R^{23}$  represents an alkyl group, an aryl group or a heterocyclic group; at least two of  $R^{21}$ ,  $R^{22}$  and  $R^{23}$  may be combined with each other to form a ring,

$R^{31}$  and  $R^{32}$ , which are the same or different, each represents an alkyl group, an aryl group or a heterocyclic group;  $R^{31}$  and  $R^{32}$  may be combined with each other to form a ring,

$R^{41}$  and  $R^{42}$ , which are the same or different, each represents an alkyl group, an aryl group or a heterocyclic group;  $R^{43}$  represents an alkyl group, an aryl group, a heterocyclic group or  $-N(R^{44})(R^{45})$ ;

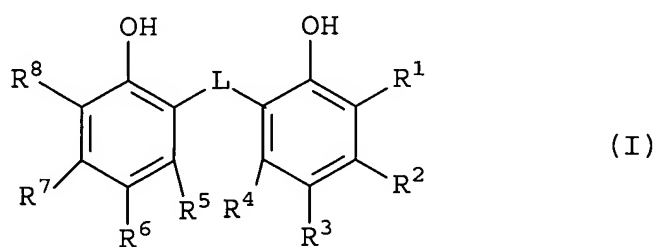
$R^{44}$  and  $R^{45}$ , which are the same or different, each represents an

alkyl group, an aryl group or a heterocyclic group; at least two of  $R^{41}$ ,  $R^{42}$ ,  $R^{43}$ ,  $R^{44}$  and  $R^{45}$  may be combined with each other to form a ring, and

$R^{51}$ ,  $R^{52}$ ,  $R^{53}$ ,  $R^{54}$  and  $R^{55}$ , which are the same or different, each represents a hydrogen atom or a substituent; at least two of  $R^{51}$ ,  $R^{52}$ ,  $R^{53}$ ,  $R^{54}$  and  $R^{55}$  may be combined with each other to form a ring.

8. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 7, wherein the phenol compound is an o-polyphenol compound.

9. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 8, wherein the o-polyphenol compound is a compound represented by formula (I):



wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$  and  $R^8$ , which are the same or different, each represents a hydrogen atom or a substituent capable of being substituted on the benzene ring; L represents -S- or -CHR<sup>9</sup>-; and  $R^9$  represents a hydrogen atom or an alkyl group.

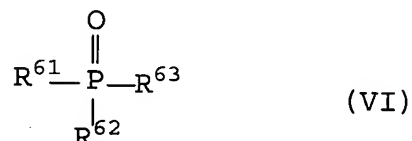
10. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 9, wherein the compound represented by formula (I) is a compound in which  $R^2$ ,  $R^4$ ,  $R^5$  and  $R^7$  each represents a hydrogen atom;  $R^1$  and  $R^8$  each independently represents an alkyl group;  $R^3$  and  $R^6$  each independently represents an alkyl group; and L represents  $-\text{CHR}^9-$ .

11. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 10, wherein  $R^1$  and  $R^8$  each independently represents a secondary alkyl group or a tertiary alkyl group.

12. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 7, wherein the hydrogen bond-forming rate constant ( $K_f$ ) is from 70 to 4,000.

13. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in Claim 7, wherein the phenol compound is an o-polyphenol compound, and the compound which satisfies at least one of the conditions (A) and (B) is the compound having a phosphoryl group in its molecule.

14. (Currently Amended) The ~~heat-developable image recording material method~~ as claimed in Claim 7, wherein the compound having a phosphoryl group in its molecule is a compound represented by formula (VI):



wherein  $\text{R}^{61}$ ,  $\text{R}^{62}$  and  $\text{R}^{63}$ , which are the same or different, each represents an alkyl group, an aryl group, an aralkyl group, an alkoxy group, an aryloxy group, an amino group or a heterocyclic group.

15. (Currently Amended) The ~~heat-developable image recording material method~~ as claimed in claim 1, ~~which further comprises an~~ wherein an image-forming layer containing is formed by combining the photosensitive silver halide, the non-photosensitive organic silver salt and the binder.

16. (Currently Amended) The ~~heat-developable image recording material method~~ as claimed in claim 15, wherein ~~the image-forming layer further contains~~ the reducing agent for a silver ion is added to the image-forming layer.

17. (Currently Amended) The ~~heat-developable image recording material~~ method as claimed in claim 15, ~~which further comprises~~ further comprising forming a second image-forming layer containing the reducing agent for a silver ion.

18. (New) The method as claimed in claim 1, wherein the polymer latex has a halogen ion content of not more than 100 ppm.

19. (New) A method of preparing a heat-developable image recording material comprising an emulsion layer comprising a binder comprising a polymer latex having a halogen ion content of not more than 500 ppm,

wherein said method comprises:

emulsion polymerizing one or more monomers to form the polymer latex, wherein the polymer latex is not subjected to purification through a desalting step.